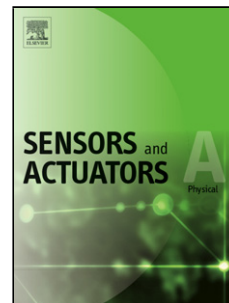


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Improvements in electrical properties, low frequency noise and detection performance of a Mn-based bilayer thin film infrared detector

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Highlights

- This paper shows the fabrication and structural properties of three Mn-based thin film detectors.
- The improvements in electrical, noise properties of the bilayer structured film and traditional MCN films were investigated.
- The comparability of the MCN-MCCN detector with that of the traditional one was investigated.

ABSTRACT

Experimental studies about low frequency $1/f$ noise and detection performance of Mn-based monolayer and bilayer structured detectors produced by Radio Frequency (RF) sputtering method have been carried out. $\text{Mn}_{1.56}\text{Co}_{0.96}\text{Ni}_{0.48}\text{O}_4$ (MCN) thick film (10 μm) was deposited on sapphire substrate to produce infrared detector by using

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